

REMARKS/ARGUMENTS

Claims 16-20, 23-24 and 26-28 are active in this application.

Claim 16 has been amended to define that the average degree of alkoxylation of from 1 to 8 is based on the C₄₋₈ alkylglycols or -diglycols as previously presented in now cancelled Claim 15.

No new matter is believed to have been added by these amendments.

While Applicants disagree with the Examiner, based on this amendment, the rejection under 35 USC 112, first paragraph is no longer applicable. Withdrawal of the rejection is requested.

As apparent from Claim 16, the claims are directed to mixture of C₂₋₅-alkoxylates of C₄₋₈-alkylglycols -or diglycols. This mixture provides a positive effect on wetting ability of wetting auxiliaries even in dilute systems and for increasing the solubility of wetting auxiliaries and aqueous formulations comprising nonanionic surfactants.

Indeed, the examples presented in the specification demonstrate the advantageous behavior of the mixture being claimed. In the examples starting on page 13 there are presented two examples; Example 1 and Example 2.

Example 2 shows that the specific mixture of Claim 16 makes it possible to achieve an interfacial tension of 43 mN/m in only 0.2 seconds (formulation B) whereas comparative formulation (A) with the same composition but for cumene sulphonate used in place of hexyl glycol ethoxylate with a degree of ethoxylation of 4. Formulation A in equilibrium yielded an interfacial tension of 50 mN/m after 0.5 seconds.

This Example shows that formulation B (as in the claims) has advantages over formulation A in its static and dynamic properties.

The paper finishing example on pages 14-15 shows that the inventive alkylglycol alkoxyates significantly improve the uniformity of an image that is printed on a treated paper (as outlined in the table on page 15).

As neither Evers nor Oldenhove describe the same mixture as is claimed, the claims are not anticipated by nor obvious in view of Evers or Oldenhove. Further details follow.

The Office has maintained the rejections based on Evers and Oldenhove, primarily because the materials described in these references are allegedly free of alcohol and obtained by the same process as is claimed (see pages 4-5 of the Official Action). As further reasoning to maintain the rejection is that the homolog distribution previously set forth in Claim 15 was met by what Oldenhove and Evers described. While Applicants continue disagree, the points are moot in light of the fact that neither Oldenhove nor Evers describe a mixture of C₂₋₅-alkoxyates of C₄₋₈-alkylglycols -or diglycols which, on average, have a degree of alkoxylation of from 1 to 8 based on the C₄₋₈ alkylglycols or -diglycols, and surfactants which, dissolved in an amount of 5 g/l of water, exhibit an interfacial tension of less than 45 mN/m at 20°C, and/or dihydroxyalkynes or derivatives thereof (see Claim 16).

This is apparent after reviewing what Evers and Oldenhove describe.

Evers describe compositions with at least one long-chain surfactant, which are stabilized by the additional presence of short-chain surfactants. On page 2, line 58 to page 3, line 19 suitable long-chain surfactants are C₁₁-C₂₄ alkyl sulphates, alkyl ether sulphates, alkyl sulphonates, alkyl succinates, alkyl carboxylates, alkyl ether carboxylates, alkyl sarcosinates, sulphosuccinates, amine oxides, glucose amides, alkyl pyrrolidones, alkyl polysaccharides, alkyl alkoxyates and betaines. The Evers compositions can also have at least one short-chain surfactant, or mixtures thereof (page 3, lines 20 to 25 of Evers). The short-chain surfactants is

the same as the long-chain surfactants except that the alkyl group as hydrophobic portion is a C₆ to C₁₀ alkyl group.

Thus, the Evers composition is not nor can be the same as a mixture of C₂₋₅-alkoxylates of C₄₋₈-alkylglycols -or diglycols as in Claim 16.

Still further, Evers provides no disclosure or otherwise suggests that the specific mixture as set forth in claim 16 yields improved static and dynamic properties to aqueous solutions (see Example 2 and the discussion above).

Therefore, the claims are not anticipated by Evers because Evers describes a different composition. The claims would also not have been obvious because Evers provides no suggestion for the mixture as claimed.

Withdrawal of the rejections based on Evers is requested.

Turning to Oldenhove. Oldenhove describes a composition with a polar solvent like water, a non-polar solvent, an amphiphile and optionally a surfactant (see page 3, lines 38 to 40 and page 7, lines 18 to 21). The low molecular weight amphiphile is a molecule composed of at least two parts which is capable of bonding for or at least having an affinity with the polar solvent and the nonpolar solvent (see page 6, lines 6 and 7). Suitable hydrophilic and hydrophobic parts are listed in the table on page 6: (reproduced below):

Group	MW	d _a	d _p	d _H
-CH ₂ -OH	31	15.5	16.1	25.4
-CH ₂ -NH ₂	30	13.8	9.3	16.7
-CO-NH ₂	44	13	14.1	13.4
-CH ₂ -NH-CO-NH ₂	73	13.7	11.4	13.6
-CH ₂ -EO-OH	75	14.9	3.1	17.5
-CH ₂ -EO ₂ -OH	119	14.8	2.6	14.8
-CH ₂ -EO ₃ -OH	163	14.7	2.1	13.3
-CH ₂ -EO ₄ -OH	207	14.7	1.9	12.4
-COO-CH ₃	59	13.7	8.3	8
-CO-CH ₃	43	16.5	17.9	6.8
-C ₃ H ₇	43	13.7	0	0
-C ₄ H ₉	57	14.1	0	0
-C ₁₀ H ₂₁	141	15.8	0	0

What is missing from this disclosure is a mixture of C₂₋₅-alkoxylates of C₄₋₈-alkylglycols -or diglycols as defined in claim 16 presented herein.

Oldenhove provides no disclosure or otherwise suggests that the specific mixture as set forth in claim 16 yields improved static and dynamic properties to aqueous solutions (see Example 2 and the discussion above).

Therefore, the claims are not anticipated by Oldenhove because Oldenhove describes a different composition. The claims would also not have been obvious because Evers provides no suggestion for the mixture as claimed.

Withdrawal of the rejections based on Oldenhove is requested.

With respect to the double patenting rejection in view of U.S. Patent No. 6,680,412 the claims of the '412 patent claim alcohol alkoxylate of formula (1) as well as detergents, formulations and processes for preparing those. Claim 16 of the present application, however, defines a mixture of C₂₋₅-alkoxylates of C₄₋₈-alkylglycols -or diglycols which, on average, have a degree of alkoxylation of from 1 to 8 based on the C₄₋₈ alkylglycols or -diglycols and surfactants which, dissolved in an amount of 5 g/l of water, exhibit an

interfacial tension of less than 45 mN/m at 20°C, and/or dihydroxyalkynes or derivatives thereof.

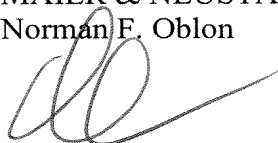
The '412 patent claims are not the same as nor otherwise suggest the specific mixture defined in claim 16 nor that the specific mixture as set forth in claim 16 yields improved static and dynamic properties to aqueous solutions (see Example 2 and the discussion above).

Accordingly, the claims of the present application are not obvious in view of the claims of U.S. '412 patent and as such withdrawal of this rejection is again requested.

A Notice of Allowance is requested for all pending claims. Should the Examiner deem that any further action is required to place this application in even better form for allowance, he is invited to contact the Applicants' undersigned representative.

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